Claims

We claim:

1. A transceiver, comprising:

a receiver that can receive data on a plurality of frequency-separated channels from a transmission medium;

a transmitter that can transmit data on the plurality of frequency separated channels on the transmission medium; and

a power balance that adjusts the power output on at least one of the plurality of frequency separated channels by the transmitter based on signals received from the receiver.

2. The transceiver of claim 1, wherein the signals received from the receiver are gain values to amplifiers amplifying signals down-converted from each of the plurality of frequency-separated channels, wherein the gain values are determined in response to data received from a complementary transmitter transmitting through the transmission medium.

3. The transceiver of claim 2, wherein the gain values are determined in an automatic gain circuit.

4. The transceiver of claim 2, wherein the power balance adjusts the power output by adjusting at least one gain of at least one amplifier coupled to transmit signals on at least one of the plurality of frequency separated channels.

5. The transceiver of claim 4, wherein the at least one gain is adjusted by multiplying the at least one gain by the ratio of a corresponding one of the gain values and the average gain value.

6. The transceiver of claim 4, wherein the at least one gain is adjusted by multiplying the at least one gain by the ratio of a corresponding one of the gain values and a threshold gain value.

7. The transceiver of claim 6, wherein the at least one gain is adjusted only if the corresponding one of the gain values is greater than the threshold gain value.

8. The transceiver of claim 1, wherein the power balance is enabled during a start-up process.

9. A method of performing a power balance in a multi-channel transceiver, comprising:

setting at least one gain associated with transmission on at least one of a plurality of frequency-separated channels of the multi-channel transceiver to a transmission medium;

receiving data from a corresponding one of the at least one of the plurality of frequency-separated channels from the transmission medium;

generating a gain value associated with the at least one gain based on the received data; and

adjusting the at least one gain in response to the gain value.

10. A transceiver, comprising:

means for transmitting data in a plurality of frequency-separated channels;

means for receiving data transmitted in the plurality of frequency-separated channels; and

means for adjusting power of data transmitted in at least one of the plurality of frequency separated channels in response to power received by the means for receiving.